ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 – (217) 782-3397
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601 – (312) 814-6026

ROD R. BLAGOJEVICH, GOVERNOR DOUGLAS P. SCOTT, DIRECTOR

217/524-3300

April 23, 2007

Certified Mail
7004 2510 0001 8616 6713

VanTran Electric
Attn: Environmental Coordinator
1505 VanTran Avenue
Vandalia, Illinois 62471

Re: 0510350004 -- Fayette County
Van Tran Electric
ILD981093628
RCRA Permit

Dear Environmental Coordinator:

The Illinois EPA and the United States Environmental Protection Agency (U.S. EPA) have compiled a list of all facilities deemed appropriate and important to address using the Resource Conservation and Recovery Act's (RCRA) Corrective Action Program. Because this set of 3,880 facilities has national remediation goals which will culminate in the year 2020, it is referred to as the 2020 Corrective Action Universe. Your facility is part of this 2020 Universe.

As a result, a final remedy needs to be in place (i.e., remedy construction completed) at your facility by 2020 (although actual attainment of cleanup goals through remedy implementation may take a while longer). If we have not already done so, we will be working with you to develop a plan and a schedule that achieves this goal before 2020.

Your facility has been included in the 2020 Universe because one or more of the following is true:

- It has a RCRA permit obligation,
- Illinois EPA and U.S. EPA agreed that it needs to be addressed under the RCRA Corrective Action Program, as it at one time operated a hazardous waste management unit subject to the interim status or permit requirements of RCRA.

Inclusion on this list does not imply failure on your part to meet any legal obligation, nor should it be construed as an adverse action against you. It only means that Illinois EPA and U.S. EPA have identified your facility – and every other facility in the 2020 Universe – as needing to complete RCRA Corrective Action if they have not done so already. Our national program goal is to address these cleanup obligations before the end of 2020. Accordingly, progress will be tracked for each facility in the 2020 Universe. The list of facilities will be posted on our web site at http://www.epa.gov/correctiveaction in the near future.

Illinois EPA will work to address remediation concerns at your facility in a manner consistent with your plans for the property. There are a variety of options available for completing the required remediation efforts at your facility, ranging from participation in Illinois EPA's Site Remediation Program to establishment of an Administrative Order on Consent with USEPA under Section 3008(h) of RCRA.

Illinois EPA would like to schedule a meeting with you in the near future to discuss remedial activities at your facility and achievement of the goal mentioned in the second paragraph of this letter. Please contact James K. Moore, P.E. of my staff at 217/524-3295 if you have any questions regarding this letter and to schedule a meeting to discuss the contents of this letter.

Sincerely,

Stephen F. Nightingale, P.E.
Manager, Permit Section
Bureau of Land

SFN:JKM:bjh\072572s.dot

cc: Hak Cho, USEPA, Region 5

EXHIBIT 1

Statement of Work

for a

Remedial Investigation/Feasibility Study at Van Tran Electric Corp., Vandalia, Illinois

July 23, 1985

Hazardous Substances Control Section
Division of Land Pollution Control
Illinois Environmental Protection Agency
Springfield, Illinois 62706

Statement of Work

for a

Remedial Investigation/Feasibility Study
at Van Tran Electric Corp., Vandalia, Illinois

The Consultant shall furnish the necessary personnel, materials, and services required to perform the two part project at the site including:

1. Remedial Investigation; and

2. Feasibility Study.

This Statement of Work relates specifically to Van Tran Electic Corp., Vandalia, Illinois. The Remedial Investigation/ Feasibility Study (RI/FS) described in this Statement of Work will be conducted in cooperation with the State of Illinois. The Illinois Environmental Protection Agency (IEPA) will be consulted routinely throughout the project to provide continued review and comments. The selected consultant and laboratory for this RI/FS must receive IEPA approval prior to project initiation.

REMEDIAL INVESTIGATION

PURPOSE

The purpose of this Remedial Investigation is to determine the nature and extent of the problem presented by contamination at the site, including investigations of the soils, surface waters, sediments, groundwater, and ambient air. This information will be used to select an appropriate remedial response in the Feasibility Study.

SCOPE

The Remedial Investigation consists of eight tasks:

Task 1 - Description of Current Situation

Task 2 - Plans and Management

Task 3 - Site Investigation

Task 4 - Preliminary Remedial Technologies

Task 5 - Site Investigation Analysis

Task 6 - Reports

Task 7 - Community Relations Support

Task 8 - Quality Assurance/Quality Control (QA/QC)

A detailed work plan for the proposed Remedial Investigation shall be prepared as described in Task 2. The Remedial Investigation will be carried out in a six (6) month time frame.

TASK 1 - DESCRIPTION OF CURRENT SITUATION

The Consultant shall describe the background information pertinent to the site and its problems and outline the purpose for remedial investigation at the site. The data gathered during any previous investigations or inspections and other relevant data should be used.

This task may be conducted concurrently with Task 2, development of the work plan.

A. Initial Meeting

A meeting will be held with representatives of Van Tran Electric Corp., IEPA, and the Consultant prior to initiation of work on the Remedial Investigation. The purpose of this meeting is to discuss the overall project and scope of work and carry out a preliminary field investigation of the site.

B. Additional Data Gathering: Existing Data Review and Evaluation

Review all available reports and data prior to formal initiation of the Remedial Investigation. This data review will serve to prevent duplication of past activities. The review will focus on site background, nature and extent of the contamination, previous and present sampling and analyses, and previous response actions. The Consultant shall review existing data to determine if quality control criteria have been met and what existing data can be used in this Remedial Investigation.

Data may be obtained from such sources as:

- U.S. Geological Survey

- U.S. Soil Conservation Service

- Illinois State Geological Survey
- Illinois State Water Survey
- Illinois Department of Conservation
- USEPA
- IEPA

Other data can be collected from sources such as site records, studies carried out at the site, air photos, interviews (e.g., of present and/or previous site owners and/or operators, nearby reisidents), and shipping documents. The Consultant shall identify remedial technologies for consideration providing detail sufficient to insure that site investigations will develop a data base adequate for the evaluation of alternatives during the Feasibility Study (as discussed in Task 4).

C. Site Background

Prepare a summary of the site location, pertinent area boundary features, and general site physiography, hydrology, and geology. Define the total area of the site and the general nature of the problem, including pertinent history relative to the use of the site for hazardous waste disposal.

D. Nature and Extent of Problem

Prepare a summary of the actual and potential on-site and off-site health and environmental effects. This may include, but is not limited to, the types, physical states, and amounts of the hazardous substances; the existence and conditions of drums, storage tanks, and impoundments; affected media and pathways of exposure; contaminated releases such as leachate or runoff; and any human exposure. Emphasis should be placed on describing the threat or potential threat to public health and the environment.

E. History of Response Actions

Prepare a summary of any previous response actions conducted by either local, State, Federal, or private parties, including the site inspection and other technical reports, and their results. This summary should address any enforcement activities undertaken to identify responsible parties, compel private cleanup,

and recover costs. The scope of the Remedial Investigation should be developed to address the problems and questions that have resulted from previous work at the site.

F. Site Map

Prepare and submit for IEPA approval a current site map showing elevations and locations of all pertinent physical features and facilities. Such information is necessary for developing, screening, and selecting remdial actions as well as for the actual design and implementation of the remedial actions.

A legal description of property boundaries shall be researched in the county records and verified in the field by conducting a boundary survey.

A topographic survey of the site limits shall be performed tying horizontal distances of appropriate physical features and facilities to the property boundary, and vertical elevations to National Geodetic Vertical Datum (mean sea level). Accuracy will be within 0.5 feet horizontal and 0.1 feet vertical. A topographic map will be produced showing 1 foot contours and with a scale of 1 inch = 100 feet. These criteria may be modified to improve clarity and produce a map size that can be effectively used.

Typical features and facilities that will be included are:

1. Locations of buildings, ponds, streams, ditches, railroad tracks, fences and other prominent fixtures on or adjacent to the site;

2. Locations of underground pipes and tanks and wells;

3. Elevations and locations of roads providing access to the site; and

4. Ground and top-of casing elevations at each monitoring well. Top-of-casing elevations will be determined within an accuracy of 0.01 feet. This may be provided as an attachment to the map for clarity.

G. Surrounding Property Map

A map shall be prepared on a scale of 1 inch = 300 feet showing all boundary lines of properties adjacent to Van

Tran Electric Corporation's property boundaries. Current record title holders of all adjacent properties (surrounding tracts) shall be indicated on the map.

H. Site Office

If agreed to by IEPA, establish a temporary site office to support site work.

TASK 2 - PLANS AND MANAGEMENT

Prepare all necessary plans for the Remedial Investigation. The work plan shall be submitted by the Consultant for IEPA approval and shall include a detailed discussion of the technical approach, budget, personnel requirements, and schedules. The RI/FS work schedule can be supplied in a format as provided in Appendix I. Also, in order to show anticipated progressional scheduling of tasks, a bar-chart format will be provided showing task scheduling. Specific topics to be covered in the work plan include the following:

A. Sampling Plan

Prepare a sampling plan to address all field activities to obtain additional site data. The plan will contain a statement of sampling objectives; specification of equipment, analyses of interest, sample types, and sample locations and frequency; and schedule. The plan will also include a quality assurance and quality control plan with documentation and requirements and estimates of costs and labor. The plan must address all levels of the investigation as well as all types of investigations conducted (e.g., waste characterization, hydrogeologic, soils and sediments, surface water, and air). The plan will identify potential remedial technologies and associated data that may be needed to evaluate alternatives for the feasibility study.

B. Health and Safety Plan

Prepare a health and safety plan to address hazards that the investigation activities may present to the inveetigation team and to the surrounding community. The plan is to detail personnel responsibilities, protective equipment, procedures and protocols, decontamination, training and medical surveillance, as well as identifying problems or hazards that may be encountered and their solutions. Procedures for protecting third parties, such as visitors and the surrounding community, are to be included. The plan is to be consistent with:

1. Section 111(c)(6) of CERCLA;

2. EPA Order 1440.1 - Respiratory Protection;

3. EPA Order 1440.3 - Health and Safety Requirements for Employees Engaged in Field Activities;

4. EPA Occupational Health and Safety Manual;

5. EPA Interim Standar Operating Safety Guide (September, 1982);

6. Other EPA guidance as provided;

7. State safety and health statutes;and

8. Site conditions.

C. Data Management Plan

Develop and initiate a data management plan to document and track investigation data and results. This plan is to identify and set up laboratory and data documentation materials and procedures, project file requirements, and project-related progress and financial reporting procedures and documents.

D. Community Relations Plan

Prepare a plan, based on on-site discusssions for the dissemination of information to the public regarding investigation activities and results. Opportunities for comment and input by citizen, community and other groups must also be identified and incorporated into the plan. Staffing and bedget requirements for implementation also must be included.

TASK 3 - SITE INVESTIGATION

The Consultant will conduct only those site remedial investigations necessary to characterize the site and its actual or potential hazard to publich health, welfare, and the environment. The investigations should result in data of adequate technical content to support the development and evaluation of remedial alternatives during the Feasibility Study. Investigation activities will focus on problem definition and data to support the screening of remedial technologies, alternative development and screeening, and detailed evaluation of alternatives.

The Consultant shall submit for approval by IEPA a detailed work plan for each media investigation conducted in Task 3 (see subparts A through G below), including descriptions of sampling locations, frequency and timing of sampling, equipment, and procedures as well as contaminant background levels where appropriate.

All sample collection, transportation, and analyses will conform to the approved QAPP developed in Task 8, to guidelines in the User's Guide to the USEPA Contract Laboratory Program (CLP) (October, 1984) and to NEIC chain-of-custody procedures.

Data resulting from the following investigations shall be submitted to IEPA as early as practicable. Results of laboratory analysis will be submitted to IEPA following the analysis of each batch of samples organized in the order that the samples were analyzed with supporing data. This reporting process will assist quality assurance/quality control review and will assist decision making regarding the deletion of parameters in later sample analysis.

A. Waste Characterization

Pursuant to an approved work plan, the Consultant shall conduct a sampling and analysis program to characterize all materials of interest at the site. These materials are to include wastes stored above or below ground in tanks, drums, impoundments, lagoons, piles, production areas, or other structures.

B. Geophysical Investigation

Pursuant to an approved work plan, geophysical techniques will be applied to help define site geology and the occurrence of contamination. Where existing data does not supply sufficient information, techniques such as seismic refraction will be used to define depth to bedrock. Resistivity or conductivity testing, where applicable, will be used to help delineate areas with contaminated groundwater.

C. Hydrogeologic Investigation

Pursuant to an approved work plan, the Consultant shall develop and conduct a program to evaluate groundwater flow patterns and the extent and effects of groundwater contamination.

1. Groundwater Flow

The plan for evaluating groundwater flow patterns shall be designed to provide the following information:

a). A description of the regional geologic and hydrogeologic characteristics in the vicinity, including:

i). local stratigraphy (soil and unconsolidated sediment cover, bedrock, structural features, and formation origins);

ii). regional hydrogeologic flow patterns; and

iii). areas of recharge and discharge.

b). An analysis of any topographic or geomorphic features that might influence the groundwater flow system (stereoscopic analysis of aerial photographs should aid in this analysis.

c). A classification and description of the hydrogeologic properties of all the hydrogeologic units found at the site (i.e., the aquifers and any intervening saturated and unsaturated units), including:

i). hydraulic conductivity, porosity;

ii). texture, uniformity, lithology; and

iii). an interpretation of hydraulic interconnections betweeen saturated zones.

d). Using the site map as a base, isopach and structural contour maps and at least two geologic cross sections showing the extent (e.g., depth, thickness, and lateral extent) of all hydrogeologic units within the facility property, identifying:

i). all units in the unconsolidated and consolidated deposits;

ii). zones of significant fracturing or channeling in the unconsolidated and consolidated deposits;

iii). zones of higher permeability or lower permeability that might direct or restrict the flow of contaminants;

iv). perched aquifers; and

v). the first saturated zone that may have a potential for migration of contaminants.

e). A description of water level or fluid pressure monitoring, including:

i). water level contour maps and vertical gradient sections;

ii). well or piezometer hydrographs;

iii). an interpretation of the flow system, including the vertical and horizontal components of flow; and

iv). an interpretation of any change in hydraulic gradients.

f). A description of manmade influences that may affect the hydrogeology of the site, identifying:

i). local water-supply and production wells with an approximate schedule of pumping; and

ii). manmade hydraulic structures (e.g., pipelines, french drains, and ditches).

2. Groundwater Study Methodology

The plan shall include a description of the field methods and other information sources proposed for the study and a summary of which data will be collected by each method. The proposed methods shall include, but are not limited to, the following:

a). A program of soil borings, as required to adequately describe the subsurface geology of the site. Overburden drilling shall be performed utilizing a minimum 3-1/4 inch inside diameter hollow stem rotary auger. Continuous, minimally disturbed, samples shall

be collected of the unconsolidated deposits. The program shall provide for the presence of a qualified geologist or geotechnical engineer to log and describe the materials encountered during the boring.

b). A sufficient number or wells and/or piezometers to characterize groundwater depth and gradient (both horizontal and vertical) over the entire area of the site.

c). The use of slug and/or pump tests as appropriate to determine hydraulic conductivities.

3. Groundwater Monitoring Wells

The program to determine the extent and effects of groundwater contamination shall include the installation of additional groundwater monitoring wells. This program must be able to address the concern of dense non-aqueous phase contaminants. The proposed methods for monitoring well installation and construction shall include, but not be limited to, the following:

a). Any groundwater monitoring wells shall be constructed out of stainless steel (SS 316) or Teflon below the seasonal high water table.

b). The casing shall have an inside diameter of not less than 2 inches nor more than 4 inches.

c). The well screen shall be of a manufactured type and not less than 2 feet nor more than 5 feet in length.

d). The annular space along the screened section and extending not more than one foot above the screened section shall be packed with clean, silica sand.

e). The annular space above the screened section shall be sealed with bentonite. This seal shall be a minimum of 2 feet thick.

f). The annular space above the seal shall be backfilled with expanding cement grout (cement with 5 percent bentonite). The grout shall extend above the ground surface and be sloped away from the well casing and bore hole.

g). All wells shall be vented. A lockable protective casing and cap shall be set in the expanding cement grout around the inner casing for protection.

h). All wells shall be adequately developed to minimize turbidity within the wells.

i). Appropriate tests (e.g., slug and/or pump tests) shall be conducted at each newly installed monitoring well to determine the hydraulic conductivity of the unit being monitored.

j). Ground and top-of-casing elevations, referenced to the National Geodetic Vertical Datum (mean sea level), shall be determined at each monitoring well. Top-of-casing elevations shall be determined within an accuracy of 0.01 feet.

Sampling and analysis of the monitoring wells and any private wells that could be potentially impacted by contamination by waste materials from the site shall be carried out in accordance with the approved QAPP. Samples shall be collected two times during the Remedial Investigation. Some repeat and split samples may be required to verify results. All samples collected in the first round of sampling (at locations approved by IEPA) shall be analyzed for all parameters listed in Appendix II. Samples collected in the second round of sampling shall be analyzed for for such of the parameters listed in Appendix II as are found to be present in the first round of sampling. The determination of these second round parameters shall be subject to IEPA approval. If the results of this sampling program indicate that the extent of groundwater contamination has not been defined, additional wells shall be installed and sampled. Any additional groundwater monitoring must first be approved by IEPA.

D. Soil Investigation

Pursuant to an approved work plan, the Consultant shall develop and carry out a program to determine the extent of soil contamination. The Consultant shall develop a grid including the plant property. The maximum grid size shall be 50 feet and continue outward until

background levels of contamination are found. The Consultant will carry out a depth stratified sampling program to develop a 3-dimensional understanding of contamination occurrence. Soils with background concentrations must be included in the sampling grid collected at locations approved by IEPA. Sampling and analysis must be carried out in accordance with the approved QAPP. Samples shall be analyzed for all parameters listed in Appendix II.

E. Surface Water Investigation

Pursuant to an approved work plan, the Consultant shall develop and conduct a program to determine the extent and/or potential for contamination of surface waters. Surface waters will be identified and sampled. Samples of both surface water and sediment will be collected from a minimum of the following locations:

1. Points in the on-site drainage ditch(es);

2. A point downstream of the site, midway between the site and the City Park, in Town Branch Creek; and

3. A point in the Kaskaskia River at the East Edwards Street Boat Launch.

Additional sediment samples may be required in areas where information suggests that contaminated groundwater may be flowing into surface water. Samples will be collected from each site two times during the Remedial Investigation. Sampling and analysis of all samples shall be carried out in accordance with the approved QAPP. Some repeat and split samples may be required to verify results. All samples collected in the first round of sampling (at locations approved by IEPA) shall be analyzed for all parameters listed in Appendix II. Samples collected in the second round of sampling shall be analyzed for for such of the parameters listed in Appendix II as are found to be present in the first round of sampling. The determination of these second round parameters shall be subject to IEPA approval.

F. Air Investigation

Pursuant to an approved work plan, the Consultant shall develop and conduct a program to determine the extent and potential for atmospheric contamination. The program should address the tendency of substances (identified through the Waste Characterization) to enter the atmosphere, local wind patterns, and the degree of

hazard based on containment ability of the facility. A sampling program will be developed and conducted identifying location, timing and frequency of samples, sampling techniques, and method of analysis. Sampling and analysis of all air samples shall be carried out in accordance with the approved QAPP. Frequency of sampling shall be such as to determine the extent and potential for atmospheric contamination. A representative number of the samples shall be analyzed for all parameters listed in Appendix II that are appropriate for air sampling. The remaining samples will be analyzed for a shortened list of parameters as approved by IEPA.

G. Aquatic-Biota Analysis

Pursuant to an approved work plan, fish or other aquatic organisms shall be collected from streams flowing from the plant property. Chemical analysis will be carried out on collected specimens. Sampling and analysis shall be carried our in accordance with the approved QAPP. A representative number of samples shall be analyzed for all parameters listed in Appendix II. The remaining samples will be analyzed for a shortened list of parameters as approved by IEPA.

TASK 4 - PRELIMINARY REMEDIAL TECHNOLOGIES

The Consultant will identify preliminary remedial technologies, providing detail sufficient to ensure that site investigations will develop a data base adequate for the evaluation of alternatives during the Feasibility Study.

A. Pre-Investigation Evaluation

Prior to starting any site investigations, the Consultant will assess the site conditions to determine potential categories of source control (and/or off-site) remedial actions. Examples of questions to be answered are:

1. Source Control Action

a). What containment techniques appear feasible to prevent or contain contamination of soil, groundwater, surface water, and ambient air?

b). Does on-site treatment appear to be a viable option, and if so, what category of treatment should be investigated (e.g., biological, physical, chemical, thermal)?

c). Will substances migrate or continue to migrate off-site if no action is taken? If only source control measures are taken?

2. Off-Site Action

a). Does the apparent volume of contaminated groundwater make treatment impractical?

b). What technologies are available to treat the identified contaminants at the site?

c). What technologies exist to effectively remove off-site contaminated materials?

d). Will the off-site contamination continue to pose a threat if no action is taken?

IEPA will review and screen the preliminary technologies so that the site investigations can be designed to answer these types of questions and support the Feasibility Study.

B. Post-Investigation Evaluation

Either during or following the site investigations, the Consultant will assess the investigation results and recommend preliminary remedial technologies likely to apply to the site problem. These technologies should be a refinement of the options considered in Task 4A. They will provide the basis for developing detailed alternatives and evaluating those alternatives during the Feasibility Study. The work during the Remedial Investigation will generally be limited to the following:

1. Recommending types of remedial technologies appropriate to the site condtions;

2. Recommending whether or not to remove some or all of the waste for off-site treatment, storage, or disposal;

3. Determining the compatability of groups of waste with other wastes and with materials considered as part of potential remedial action; and

4. Recommending alternatives for treatment, storage, or disposal of each category of compatible waste.

TASK 5 - SITE INVESTIGATION ANALYSIS

The Consultant shall prepare a thorough analysis and summary of all site investigations and their results. The objective of this task will be to ensure that the investigation data is sufficient in quality and quantity to meet the goals of the Remedial Investigation and support the Feasibility Study.

The results and data from all site investigations must be organized and presented logically so that the relationships between site investigations for each medium are apparent.

A. Data Analysis

The Consultant will analyze all site investigation data and develop a summary of the type and extent of contamination at the site. The summary will describe the extent of contamination (qualitative and quantitative) in relation to background levels indicative for the area.

B. Exposure (Risk) Assessment

From the detailed listing of contaminants determined as being released from the facility, a representative group will be evaluated for risk to life forms encountering these contaminants. The following items will be discussed for each contaminant in the representative group:

1. Environmental Fate and Transport

   a). physical and chemical properties

   b). chemical transformations

   c). fate and transport

2. Toxicological Properties

   a). metabolism

   b). acute toxicity

   c). subacute and chronic toxicity

   d). carcinogenicity

   e). mutagenicity

   f). teratogenicity/reproductive effects

g). other health effects

h). epidemeological evidence

i). aquatic species toxicity, environmental improvement

3. Risk Assessment and Impact Evaluation

a). carcinogenic risk

b). probability of noncarcinogenic human health effects

c). nonhuman species risk assessment

d). conclusions

4. Demographic Profile of Population at Risk

The analysis should discuss the degree to which either source control or off-site measures are required to effectively minimize or mitigate the threat to public health, welfare, or the environment. If the results of the investigation indicate that no threat or potential threat exists, a recommendation to stop the remedial response should be made.

C. Application to Preliminary Technologies

The Consultant will analyze the results of the site investigations in relation to the preliminary remedial technologies developed in Task 4. Data supporting or rejecting types of remedial technologies, compatability of wastes and construction materials, and other conclusions should be presented.

TASK 6 - FINAL REPORT

The Consultant will prepare a final report covering the Remedial Investigation phase. The report shall include the results of Tasks 1 through 5, and will include any additional information in an appendix. The report shall be structured in a manner enabling the reader to cross-reference with ease. The report will first be submitted to IEPA in draft form. IEPA will provide comments to the Consultant. The Consultant will address these comments in the final report which will be submitted within two weeks after IEPA comments are received. Ten (10) copies of the final report shall be submitted to IEPA.

TASK 7 - COMMUNITY RELATIONS SUPPORT

IEPA will conduct a community relations program with assistance from Van Tran Electric Corp. and their consultant. Community relations must be integrated closely with all remedial response activities. The objectives of this effort are to achieve community understanding of the actions taken and to obtain community input and support prior to selection of the remedial alternative(s).

Community relations support includes, but may not be limited to, the following:

A. Revisions or additions to community relations plans including definition of community relations program needs for each remedial activity.

B. Analysis of community attitudes towards proposed actions.

C. Preparation and dissemination of news releases, fact sheets, slide shows, exhibits, and other audio-visual materials designed to apprise the community of current or proposed actions.

D. Establishment of a community information center.

E. Arrangement of briefings, press conferences, workshops, and public and other informational meetings. Public meetings shall include, at a minimum, an initial meeting to describe the remedial action program and RI/FS as well as a hearing before or during the public comment period on the Feasibility Study.

F. Assessment of the successes and failures of the community relations program.

G. Preparation of reports and participation in public meetings, project review meetings, and other meetings as necessary to the normal progress of the work.

H. Van Tran site tours or site briefings.

All community relations support must be consistent with Superfund community relations policy, as stated in the "Guidance for Implementing the Superfund Program" and Community Relations in Superfund -- A Handbook.

TASK 8 - QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)

Several items will be required to assure, establish, and verify compliance with necessary QA/QC during this Remedial

Investigation. The following items must be carried out:

A. A performance audit will be carried out on the selected laboratory. This audit will be carried out before sampling begins. The audit will include analysis of two different levels of performance samples. The laboratory is expected to qualify as well as quantify the parameters of interest. IEPA is requiring this audit to insure that the laboratory is capable of meeting appropriate criteria prior to project initiation. If analysis results do not meet specific criteria, IEPA reserves the right to deny use of the particular laboratory.

B. The Consultant must submit a Quality Assurance Project Plan (QAPP) to IEPA for review and approval. The QAPP must be approved by IEPA prior to any on-site work. Preparation of the QAPP shall be in accordance with "Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans", QAMS-005/80, (USEPA, Decmeber, 1980), be consistent with the USEPA Contract Laboratory Program, and include or address the following items and issues:

1. Title page with provisions for approval signatures;
2. Table of contents;
3. Project description;
4. Project organization and responsibility;
5. Quality assurance objectives for measurement data in terms of precision, accuracy, completeness, representativeness, detection limits, and comparability;
6. Sampling procedures;
7. Sample custody;
8. Calibration procedures and frequency;
9. Analytical procedures;
10. Data reduction, validation and reporting;
11. Internal quality control checks and frequency;
12. Performance and systems audits and frequency;
13. Preventive maintenance procedures and schedules;

14. Specific routine procedures to be used to assess data precision, accuracy and completeness of specific parameters involved;

15. Corrective action; and

16. Quality assurance reports.

C. An on-site visit will be carried out by an IEPA Quality Assurance Officer to verify comliance with the approved QAPP.

FEASIBILITY STUDY

PURPOSE

The purpose of this Feasibility Study is to develop and evaluate remedial alternatives and to assist identification of the remedial action to be taken at Van Tran Electric Corp., Vandalia, Illinois. The Consultant shall furnish the necessary personnel, materials, and services necessary to the remedial action Feasibility Study, except as otherwise specified herein.

SCOPE

The Feasibility Study consists of eight tasks:

Task 9 - Description of Current Situation and Proposed Response

Task 10 - Development of Alternatives

Task 11 - Initial Screening of Alternatives

Task 12 - Laboratory and Bench Scale Studies

Task 13 - Evaluation of the Alternatives

Task 14 - Preliminary Report

Task 15 - Conceptual Design

Task 16 - Final Report

A detailed work plan for the proposed Feasibility Study, including a detailed technical approach, personnel requirements, and schedule, shall be submitted for approval by IEPA. Also, in order to show anticipated progressional scheduling of tasks, a bar-chart format will be provided showing task scheduling. The Feasibility Study will be carried out in a three (3) month time period.

TASK 9 - DESCRIPTION OF CURRENT SITUATION AND PROPOSED RESPONSE

Information on the site background, the nature and extent of the problem, and previous response activities presented in Task 1 of the Remedial Investigation may be incorporated by reference. Any changes to the original project scope described in the Task 1 description should be discussed and justified based on results of the Remedial Investigation.

Following this summary of the current situation, a site-specific statement of the purpose for the response, based on

results of the Remedial Investigation, should be presented. The statement of purpose should be organized in terms of components amenable to discrete remedial measures (e.g., a statement of purpose describing the evaluation of alternatives for treatment of contaminated groundwater).

TASK 10 - DEVELOPMENT OF ALTERNATIVES

Based on the results of the Remedial Investigation and consideration of preliminary remedial technologies (Task 4), the Consultant will develop a number of alternatives for source control, off-site remedial actions, or both, on the basis of objectives established for the response.

A. Establishment of Remedial Response Objectives

Establish site-specific objectives for the response. These objectives shall be based on public health and environmental concerns, the description of the current situation (from Task 1), information gathered during the Remedial Investigation, Section 300.68 of the National Contingency Plan (NCP), EPA's interim guidance, and the requirements of any other applicable EPA, Federal, and State environmental standards, guidance, and advisories as defined under EPA's CERCLA compliance policy. Objectives for source control measures should be developed to prevent or significantly minimize migration of contamination from the site. Objectives for management of migration measures should prevent or minimize impacts of contamination that has migrated from the site. Preliminary cleanup objectives shall be developed in consultation with IEPA.

B. Identification of Remedial Alternatives

Develop alternatives to incorporate remedial technologies (from Task 4), response objectives, and other appropriate considerations into a comprehensive, site-specific approach. Alternatives developed should include the following:

1. Alternatives for off-site treatment or disposal, as appropriate;

2. Alternatives which attain applicable and/or relevant Federal and State public health or environmental standards;

3. Alternatives which exceed applicable and/or relevant public health or environmental standards; and

4. Alternatives which do not attain applicable and/or relevant public health or environmental standards but which will reduce the likelihood of present or future threat from the hazardous substances. This must include an alternative which closely approaches the level of protection provided by the applicable or relevant standards.

There may be overlap among the alternatives developed. Further, alternatives outside of these categories may also be developed, such as a non-cleanup alternative (e.g., alternative water supply, relocation). The alternatives shall be developed in close consultation with IEPA. Document the rationale for excluding any technologies identified in Task 4 in the development of alternatives.

TASK 11 - INITIAL SCREENING OF ALTERNATIVES

The alternatives developed in Task 10 will be screened by the Consultant and IEPA to eliminate those that are clearly infeasible or inappropriate, prior to undertaking detailed evaluations of the remaining alternatives.

Factors to be considered as the basis for the initial screening are as follows:

A. Environmental Protection

Only those alternatives that satisfy the response objectives, that effectively minimize or mitigate actual or potential harm to public health, welfare, and the environment, and that are in compliance with all other Federal, State or local environmental and health laws shall be considered further. Source control alternatives shall achieve adequate control of source materials. Off-site alternatives shall minimize or mitigate the threat of harm to public health, welfare, and the environment.

B. Environmental Effects

Alternatives posing significant adverse environmental effects will be excluded.

C. Implementability and Reliability

Alternatives that may prove extremely difficult to implement, will not achieve the remedial objectives in a reasonable time period, or rely on unproven technology will be eliminated.

TASK 12 - LABORATORY AND BENCH SCALE STUDIES

The Consultant will conduct any necessary laboratory, bench scale treatability or modeling studies required to evaluate the effectiveness of remedial technologies and establish engineering criteria (e.g., leachate treatment; groundwater treatment; compatability of waste/leachate with site barrier walls, covers, and other materials proposed for use in the remedy). It is expected that the scope of this task will depend on the results of Tasks 10 and 11 and therefore will not be complete at the start of Task 13. The Consultant will submit a seperate work plan for any proposed laboratory studies for IEPA approval. This submittal will be made in the timeframe required to maintain steady progress of the overall Feasibility Study. (Additional studies may also be conducted during the design phase if needed to refine treatability results or develop detailed design criteria).

TASK 13 - EVALUATION OF ALTERNATIVES

The Consultant will evaluate the alternative remedies that pass through the initial screening in Task 11. Alternative evaluation shall be preceded by a detailed development of the remaining alternatives.

A. Detailed Development of Remaining Alternatives

The detailed development of remaining feasible remedial alternatives shall include, as a minimum, the following:

1. A description of appropriate treatment and disposal technologies.

2. A discussion of how the alternative does (or does not) comply with specific requirements of other environmental programs. When an alternative does not comply, discuss how the alternative prevents or minimizes the migration of waste and its public health or environmental impacts and describe special design needs that could be implemented to achieve compliance.

3. An outline of operation, maintenance, and monitoring requirements of the remedy.

4. An identification and review of potential off-site facilities to ensure compliance with applicable RCRA and other Federal and State environmental program requirements, both current and proposed. Potential disposal facilities are to be evaluated to determine whether off-site management of site wastes could

result in a potential for a future release from the disposal facility.

5. An identification of temporary storage requirements, off-site disposal needs, and transportation plans.

6. A description of whether the alternative results in permanent treatment or destruction of the waste, and, if not, the potential for future release to the environment.

7. An outline of safety requirements for remedial implementation (including both on-site and off-site health and safety considerations).

8. A description of how the alternative could be phased into individual operable units. The description should include a discussion of how various operable units of the total remedy could be implemented individually or in groups, resulting in a significant improvement to the environment or savings in cost.

9. A description of how the alternative could be segmented into areas to allow implementation in differing phases.

10. A description of special engineering requirements of the remedy or site preparation considerations.

B. Environmental Analysis

The Consultant will perform an Environmental Assessment (EA) for each alternative. The EA shall include, at a minimum, an evaluation of each alternative's environmental effects, an analysis of measures to mitigate adverse effects, physical or legal constraints, and compliance with applicable and/or relevant Federal and State public health or environmental standards. The alternative which best protects human health, welfare, and the environment shall be idenified.

C. Public Health Analysis

The Consultant will assess each alternative in terms of the extent to which it mitigates long-term exposure to any residual contaminations and protects public health, welfare, and the environment both during and after completion of the remedial action. The assessment will describe the levels and characteristics of contaminants, potential exposure routes, and potentially affected

population (the exposure assessment prepared in Task 5 should be used for this). The effect of taking no remedial action should be described in terms of short term effects, the long term exposure to hazardous substances, and resulting public health impacts. Each remedial alternative shall be evaluated to determine the level of exposure to contaminants and the reduction over time. The relative reduction in adverse public health impacts for each alternative will be compared to the "no action" level. For management of migration and off-site measures, the relative reduction in impact will be determined be comparing residual levels of each alternative with existing criteria, standards, or guidelines acceptable to IEPA. For source control measures or when criteria, standards, or guidelines are not available, the comparison should be made based on the relative effectiveness.

The relative reduction in adverse public health impacts for each alternative will be compared by listing alternatives in increasing level of protection. The "no action" level will serve as the baseline for the analysis.

D. Institutional Analysis

The Consultant will evaluate each alternative based on relevant institutional needs. Specifically, regulatory requirements, permits, community relations, and participating agency coordination will be assessed.

E. Cost Analysis

The Consultant will evaluate the cost of each feasible remedial action alternative (and for each phase or segment of the alternative). The cost will be presented as a present worth cost and will include the total cost of implementing the alternative and the annual operating and maintenance cost. Both monetary costs and associated non-monetary costs will be included. A distribution of costs over time will be provided.

F. Evaluation and Recommendation of Best Overall Alternative

The Consultant will present information to assist selection, by IEPA, of the best overall remedial alternative. At a minimum, the following areas will be used to evaluate alternatives:

1. Environmental Effects

   Preference shall be given to those alternatives that are most beneficial and provide the greatest degree of long-term protection to public health, welfare, and the environment.

2. Reliability

   Alternatives that minimize or eliminate the potential for release of wastes into the environment will be considered more reliable than other alternatives. For example, recycling of waste and off-site incineration would be considered more reliable than land disposal. Institutional concerns such as management requirements can also be considered as reliability factors.

3. Implementability

   The requirements of implementing the alternatives will be considered, including phasing alternatives into operable units and segmenting alternatives into project areas on the site. The requirements for permits, zoning restrictions, rights of way, and public comment are also examples of factors to be considered.

4. Operation and Maintenance Requirements

   Preference will be given to projects with lower operation and maintenance requirements, other factors being equal.

5. Safety Requirements

   On-site and off-site safety requirements during implementation of the alternatives should be considered. Alternatives with lower safety impact and cost will be favored.

TASK 14 - PRELIMINARY REPORT

The Consultant will prepare a preliminary report presenting the results of Tasks 9 through 13. Ten (10) copies of the preliminary report will be forwarded to IEPA.

TASK 15 - CONCEPTUAL DESIGN

The Consultant will prepare a conceptual design of the remedial alternative approved by IEPA. The conceptual design

shall include, but is not limited to, the engineering approach including implementation schedule, special implementation requirements, institutional requirements, phasing and segmenting considerations, preliminary design criteria, preliminary site and facility layouts, budget cost estimate (including safety plan implementation costs and operation and maintenance costs), operating and maintenance requirements and duration, and an outline of the safety plan. Any additional information required as the basis for the completion of the final remedial design will also be included. The Consultant may also be required to revise portions of the community relations plan to reflect the results of the conceptual design.

TASK 16 - FINAL REPORT

The Consultant will prepare a final report for submission to IEPA. The report shall include the results of Tasks 9 through 15, and should include any supplemental information in appendices. The report will first be submitted to IEPA in draft form. IEPA will provide comments to the Consultant. The Consultant will address these comments in the final report which will be submitted within two weeks after IEPA comments are received. Ten (10) copies of the final report will be forwarded to IEPA.

APPENDIX I. RI/FS Work Schedule

	TASK	Output	Completion Date
1.	Description of Current Situation		
1A.	Initial Meeting		
1B.	Additional Data Gathering		
1C.	Site Background		
1D.	Nature and Extent of Problem		
1E.	History of Repsonse Actions		
1F.	Site Map	Site Map	
1G.	Surrounding Property Map	Surrounding Property Map	
2.	Plans and Management		
2A.	Sampling Plan		
2B.	Health and Safety Plan		
2C.	Data Management Plan		
2D.	Community Relations Plan		
3.	Site Investigation		
3A.	Waste Characterization	Listing	
3B.	Geophysical Investigation	Data	
3C.	Hydrogeologic Investigation	Analysis Results	
3D.	Soil Investigation	Analysis Results	
3E.	Surface Water Investigation	Analysis Results	
3F.	Air Investigation	Analysis Results	
3G.	Aquatic-Biota Analysis	Analysis Results	
4.	Preliminary Remedial Technologies		

	TASK	Output	Completion Date
4A.	Pre-Investigation Evaluation	Preliminary Report	
4B.	Post-Investigation Evaluation	Draft Final Report	
5.	Site Investigtaion Analysis	Draft Final Report	
5A.	Data Analysis		
5B.	Exposure (Risk) Assessment		
5C.	Application to Preliminary Technologies		
6.	Final Report	Draft/Final Report	
7.	Community Relations Support		
8.	Quality Assurance/Quality Control		
9.	Description of Current Situation and Proposed Response		
10.	Development of Alternatives	Task 14	
10A.	Establishment of Remedial Objectives	Task 14	
10B.	Identification of Remedial Alternatives	Task 14	
11.	Initial Screening of Alternatives	Task 14	
12.	Laboratory and Bench Scale Studies	Update Report	
13.	Evaluation of Alternatives	Task 14	
13A.	Detailed Development of Remaining Alternatives		
13B.	Environmental Analysis		
13C.	Public Health Analysis		
13D.	Institutinal Analysis		

TASK	Output	Completion Date
13E. Cost Analysis		
13F. Evaluation and Recommendation of Best Overall Alternative		
14. Preliminary Report	Preliminary Report	
15. Conceptual Design	Task 16	
16. Final Report	Draft/Final Report	

APPENDIX II. Organic and Inorganic Analysis Parameters

PRIORITY ORGANIC POLLUTANTS:

Acid Compounds

2,4,6-trichlorophenol
p-chloro-m-cresol
2-chlorophenol
2,4-dichlorophenol
2,4-dimethylphenol
2-nitrophenol
4-nitrophenol
2,4-dinitrophenol
4,6-dinitro-2-methylphenol
pentachlorophenol
phenol

Base/Neutral Compounds

acenaphthene
benzidine
1,2,4-trichlorobenzene
hexachlorobenzene
bis(2-chloroethyl)ether
2-chloronapthalene
1,2-dichlorobenzene
1,3-dichlorobenzene
1,4-dichlorobenzene
3,3-dichlorobenzidine
2.4-dinitrotoluene
2,6-dinitrotoluene
1,2-diphenylhydrazine
fluoranthene
4-chlorophenyl phenyl ether
4-bromophenyl phenyl ether
bis(2-chloroisopropyl)ether
bis(2-chloroethoxy)methane
hexachlorobutadiene
hexachlorocyclopentadiene
isophorone
napthalene
nitrobenzene
N-nitrosodiphenylamine
N-nitrosodipropylamine
bis(2-ethylhexyl)phthalate
benzyl butyl phthalate
di-n-butyl phthalate
di-m-octyl phthalate
diethyl phthalate
dimethyl phthalate
benzo(a)anthracene
benzo(a)pyrene

Base/Neutral Compounds
benzo(b)fluoranthene
benzo(k)fluoranthene
chrysene
acenaphthylene
anthracene
benzo(ghi)perylene
fluorene
phenanthrene
dibenzo(a,h)anthracene
indeno(1,2,3-cd)pyrene
pyrene

Volatiles
acrolein
acrylonitrile
benzene
carbon tetrachloride
chlorobenzene
1,2-dichloroethane
1,1,1-trichloroethane
1,1-dichloroehtane
1,1,2-trichloroethane
1,1,2,2-tetrachloroethane
cloroethane
2-chloroethylvinyl ether
chloroform
1,1-dichloroethene
1,2-trans-dichloroehtene
1,2-dichloropropane
trans-1,3-dichloropropene
cis-1,3-dichloropropene
ethylbenzene
methylene chloride
chloromethane
bromomethane
bromoform
bromodichloromethane
fluorotrichloromethane
dichlorodifluoromethane
chlorodibromomethane
tetrachloroethene
toluene
trichloroethene
vinyl chloride

Pesticides
aldrin
dieldrin
chlordane
4,4'-DDT

Pesticides
4,4'-DDE
4,4'-DDD
alpha-endosulfan
beta-endosulfan
endosulfan sulfate
endrin
endrin aldehyde
heptachlor
heptachlor epoxide
alpha-BHC
beta-BHC
gamma-BHC
delta-BHC
PCB-1242
PCB-1254
PCB-1221
PCB-1232
PCB-1248
PCB-1260
PCB-1016
toxaphene

NON-PRIORITY ORGANIC POLLUTANTS:

Acid Compounds
benzoic acid
2-methylphenol
4-methylphenol
2,4,5-trichlorophenol

Base/Neutral Compounds
analine
benzyl alcohol
4-chloroaniline
dibenzofuran
2-methylnapthalene
2-nitroaniline
3-nitroaniline
4-nitroaniline

Volatiles
acetone
2-butanone
carbondisulfide
2-hexanone
4-methyl-2-pentanone
styrene
vinyl acetate
o-xylene

INORGANICS:

Aluminum
Ammonia
Antimony
Arsenic
Barium
Beryllium
Boron
Cadmium
Calcium
Chloride
Chromium
Cobolt
Copper
Cyanide
Iron
Lead
Magnesium
Manganese
Mercury
Nickel
Potassium
Selenium
Sodium
Sulfate
Sulfide
Thallium
Tin
Vanadium
Zinc

Other Water Parameters:

Alkalinity
Conductivity
pH
Temperature
Total Dissolved Solids